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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/727,687

12/04/2003

James Fox

ACM 7711

8655

321

7590

07/27/2005

SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

LORENCE, RICHARD M

ART UNIT

PAPER NUMBER

3681

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EA

Office Action Summary	Application No. 10/727,687	Applicant(s) FOX, JAMES	
	Examiner Richard M. Lorence	Art Unit 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/4/04</u> . | 6) <input type="checkbox"/> Other: _____ |

AA

DETAILED ACTION

This is the first Office action on the merits of Application No. 10/727,687 filed on December 4, 2003.

The amendment filed on June 29, 2005 has been entered. Claim 25 has been cancelled. Claims 1-24 are currently pending.

Election/Restrictions

Applicant's election with traverse of the inventions of Groups II and III in the reply filed on June 29, 2005 is acknowledged. The traversal is on the grounds that a reliable search of the invention of provisionally elected Groups II and III would require a search of the subclass (192/70.19) where the invention of Group I is classified; and further that the burden imposed on the examiner in searching an additional 14 claims drawn to a patentably distinct invention cannot be said to be serious in contrast to the additional fees which would be incurred by applicant if he has to file a divisional application.

In applicant's opinion no serious burden will be placed on the examiner. This is not found persuasive because a search for the subject matter of Groups II and III does not require a search of subclass 192/70.19. Even assuming that a search of 192/70.19 was required for the examination of Groups II and III, the examination of Group I along with Groups II and III in a single application would in fact present a serious burden on the examiner. The examination of a claimed invention involves more than simply viewing patents which are classified in a single subclass where the invention is

classified. Searching a single invention generally requires searching multiple subclasses as well as performing an automated text search of the claimed subject matter. Searching multiple inventions in a single application substantially increases the amount of prior art which must be searched and also increases the difficulty involved when multiple concepts must be kept in mind while viewing the prior art documents. Furthermore once relevant prior art is found the examination process is not finished. Each of the application claims must then be analyzed relative to the prior art in order to determine whether the claims are patentable. As such, when multiple inventions are present in a single application, the amount of time and effort which must be expended in the examination of the application are significantly increased, creating a serious burden on the examiner.

With regard to applicant's comments regarding "weighing the relative burdens of the two parties", the examiner sees nothing in the quoted MPEP section MPEP § 803 which requires the examiner to search plural inventions in a single application in order that applicant can be spared the expense of filing a divisional application.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction requirement in the reply filed on June 29, 2005.

Claim Objections

Claim 16 is objected to because in line 3 "lest" should read - - least - - .

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-18 and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Binder '239 which shows a friction clutch including the cover 50, flywheel 10, pressure plate 36, friction disk 24, driven shaft 18 and spring 58. Note the curved surface of the cover in the vicinity of the peripheral portion of the spring. The curved surface as shown has a varying radius of curvature resembling a sine curve as defined by the mathematical relationship expressed in the limitation of claims 16 and 21.

Claims 20, 21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Spase '273 which shows a cover 5 for a friction clutch including the curved surface of the cover in the vicinity recesses 12. The curved surface as shown has a varying radius of curvature resembling a sine curve as defined by the mathematical relationship expressed in the limitation of claim and 21.

Claims 15, 16, 19-21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizukami '932 which shows a friction clutch including the cover 28, flywheel 2, pressure plate 29, friction disk 8, driven shaft 3 and spring 30. Note the curved surface of the cover in the vicinity of the peripheral portion of the spring. The curved surface as shown has a varying radius of curvature resembling a sine curve as defined by the mathematical relationship expressed in the limitation of claims 16 and 21. The cover of Mizukami exhibits a non-uniform thickness as in claims 19 and 24.

Claims 15-24 are rejected under 35 U.S.C. 102(a) as being anticipated by Szadkowski et al. '144 which shows a friction clutch including the cover 12, flywheel 32, pressure plate 18, friction disk 20, driven shaft 34 and spring 24. The cover as shown has a varying radius of curvature resembling a sine curve as defined by the mathematical relationship expressed in the limitation of claims 16 and 21. The cover of Szadkowski et al. exhibits a non-uniform thickness as in claims 19 and 24.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell '163.

Bell shows a friction clutch including the cover 16, flywheel 28, pressure plate 24, friction disk 26, driven shaft 12 and spring 30. The cover of Bell is a flat plate which, as pointed out in applicants specification at paragraph [0046], is subject to deflection. One having ordinary skill in the art would recognize that the amount of deflection is proportional to the thickness of the cover. However the person of ordinary skill would also recognize that increasing the thickness of the plate would add to the overall weight and cost of manufacturing the cover. Thus, one of ordinary skill would be reasonably motivated to explore other cover configurations which would lead to increased rigidity while minimizing the bulk of the cover. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the well known finite analysis technique to optimize the configuration of the cover in order to ensure that the cover not deflect more than a given amount when subjected to a given axial force.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on March 4, 2004 has been considered by the examiner.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Woods '086, Root '943 and Fadler et al. '495 (GB) show clutch covers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard M. Lorence whose telephone number is (571) 272-7094. The examiner can normally be reached on Mondays through Fridays from 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Richard M. Lorence
Primary Examiner
Art Unit 3681

Lorence/rml